

AMENDMENT AND RESPONSE

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Title: COMPOSITIONS AND METHODS FOR TREATING CELLS HAVING DOUBLE MINUTE DNA

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Claim 5 (New). A method according to claim 1 wherein the assay determines whether the treated test cells have undergone reversion, differentiation or apoptosis.

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Claim 6 (New). A method of identifying a therapeutic agent suitable for treatment of neoplastic cells having double minute chromosomes or extrachromosomal DNA, comprising:

contacting test cells with a potential therapeutic agent to produce treated test cells wherein the test cells contain double minute chromosomes or extrachromosomal DNA, are neoplastic and are capable of undergoing micronucleation; and

assaying the treated test cells to determine their level of micronucleation of double minute chromosomes or extrachromosomal DNA, wherein an increased level of micronucleation relative to that of an untreated portion of test cells indicates that the potential therapeutic agent is an actual therapeutic agent.

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Claim 7 (New). A method according to claim 6 wherein the assay determines whether the treated test cells have undergone reversion, differentiation or apoptosis.

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Claim 8 (New). A method for identifying a therapeutic agent suitable for treatment of neoplastic disease in a patient, comprising:

administering a potential therapeutic agent to an animal carrying neoplastic cells having double minute chromosomes or extrachromosomal DNA and being capable of undergoing micronucleation, and

examining the animal to determine whether the quantity of neoplastic cells has been lessened.

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Claim 9 (New). A method according to claim 8 wherein the examination is made by determining whether the neoplastic cells of the animal receiving the potential therapeutic agent have undergone more reversion, apoptosis or cell differentiation relative to the reversion, apoptosis or cell differentiation of neoplastic cells of an untreated animal control.